

## CLAIMS

We claim:

- 5           1.     A peristaltic pump for transporting a fluid within a flexible tube having a first end, a middle portion, and a second end, comprising:
  - a roller assembly positioned for rotation;
  - a first door positioned adjacent to said roller assembly
  - 10   and pivotable about a first direction; and
  - a second door positioned adjacent to said roller assembly and pivotable about a second direction;
  - such that said first door and said second door may pivot open and said middle portion of said flexible tube may be positioned
  - 15   about said roller assembly.
2.     The peristaltic pump of claim 1, further comprising a base such that said roller assembly may be positioned therein and such that said first door and said second door may be
- 20   pivotably attached thereto.
3.     The peristaltic pump of claim 2, wherein said base comprises a tube inlet and a tube outlet positioned thereon.
- 25           4.     The peristaltic pump of claim 2, wherein said base comprises an indent for said roller assembly to be positioned therein.

5. The peristaltic pump of claim of claim 2, wherein said base comprises a plurality of base hinges for pivoting said first door and said second door.

5 6. The peristaltic pump of claim 2, wherein said first door comprises a first door hinge and said second door comprises a second door hinge for pivoting about said base.

7. The peristaltic pump of claim 1, wherein said first  
10 door comprises a wall, said wall positioned adjacent to said roller assembly so as to define a tube run therein.

8. The peristaltic pump of claim 1, wherein said second door comprises a tube guide positioned thereon.  
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9. The peristaltic pump of claim 1, wherein said second door comprises an indent for said roller assembly to be positioned therein

20 10. The peristaltic pump of claim 1, further comprising locking means positioned thereon for said first door and said second door.

11. The peristaltic pump of claim 1, wherein said  
25 roller assembly comprises a plurality of rollers.

12. The peristaltic pump of claim 11, wherein said roller assembly comprises a plurality of discs so as to mount said plurality of rollers thereon.

5           13. The peristaltic pump of claim 12, wherein said plurality of discs comprises a plurality of roller mounting locations such that the number of rollers may be modified.

10           14. The peristaltic pump of claim 1, wherein said roller assembly comprises a plurality of replaceable rollers.

15           15. The peristaltic pump of claim 1, further comprising a pump motor in communication with said roller assembly.

            16. The peristaltic pump of claim 15, wherein said pump motor comprises a variable speed motor.

20           17. The peristaltic pump of claim 2, wherein said base, said first door, and/or said second door comprise acetal resin.

18. A peristaltic pump system for pumping a predetermined type of fluid within a flexible tube, comprising:

a pump motor;

5 wherein said pump motor comprises a variable speed motor; and

a roller assembly positioned for rotation in communication with said pump motor;

10 said roller assembly comprising a variable number of rollers.

19. The peristaltic pump system of claim 18, wherein said variable speed motor comprises about five (5) to about 120 rpm.

15 20. The peristaltic pump system of claim 18, wherein said variable number of rollers comprises about one (1) to about six (6) rollers.

21. A method of pumping a fluid within a flexible tubing with a peristaltic pump having a pump motor and a roller assembly, comprising:

selecting a first predetermined fluid;

5 selecting a first speed for the pump motor based upon the first predetermined type of fluid;

selecting a first number of rollers for the roller assembly based upon the first predetermined type of fluid; and

10 pumping the first predetermined type of fluid with the first speed and the first number of rollers.

22. The method of claim 21, further comprising selecting a second predetermined fluid, a second speed for the pump motor, and a second number of rollers and pumping the second predetermined type of fluid with the second speed and second number of rollers.

23. The method claim 21, wherein the first predetermined type of fluid comprises coffee, the first speed comprises about 30 to about 70 rpm, and the first number of rollers comprises about three (3) to about four (4) rollers.

24. The method claim 21, wherein the first predetermined type of fluid comprises orange juice, the first speed comprises about 45 to about 100 rpm, and the first number of rollers comprises about two (2) to about (3) rollers.